The 7th GIFTS Symposium - "The Cultural Diversity in Traffic and Building of Safe Societies: Toward Common Vision"
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# Open data as a catalyst for traffic safety culture change

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Road Crashes Globally

➤ **Europe** presents the lowest traffic fatality rate per population globally

➤ **Africa** has the worst road safety performance (up to 10 times more fatalities per population compared to the best performing European countries)

➤ The percentage of **VRUs'** fatalities in road crashes worldwide is especially high (54%)

➤ **Pedestrian** fatalities range from 14% to 40%

➤ **PTW** fatalities range from 9% to 43%
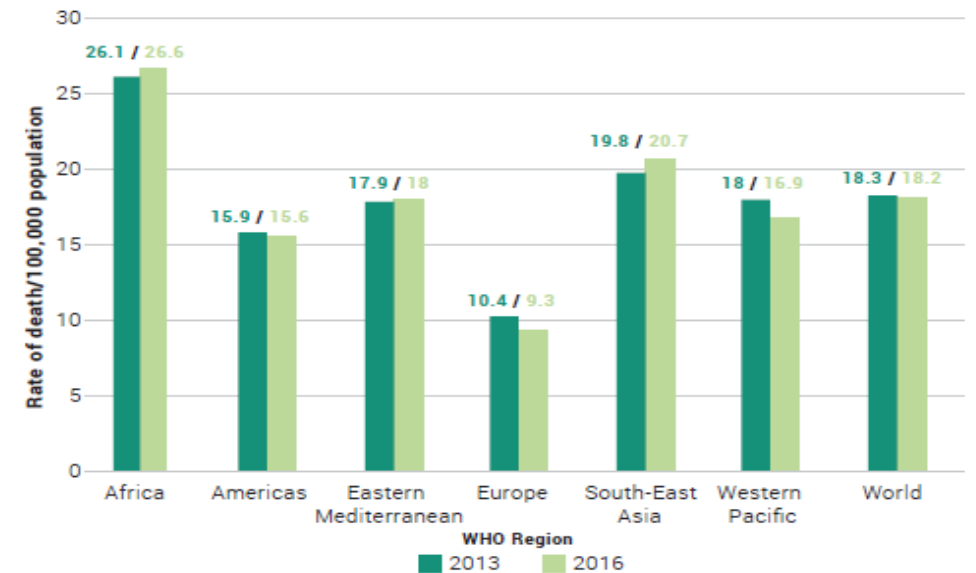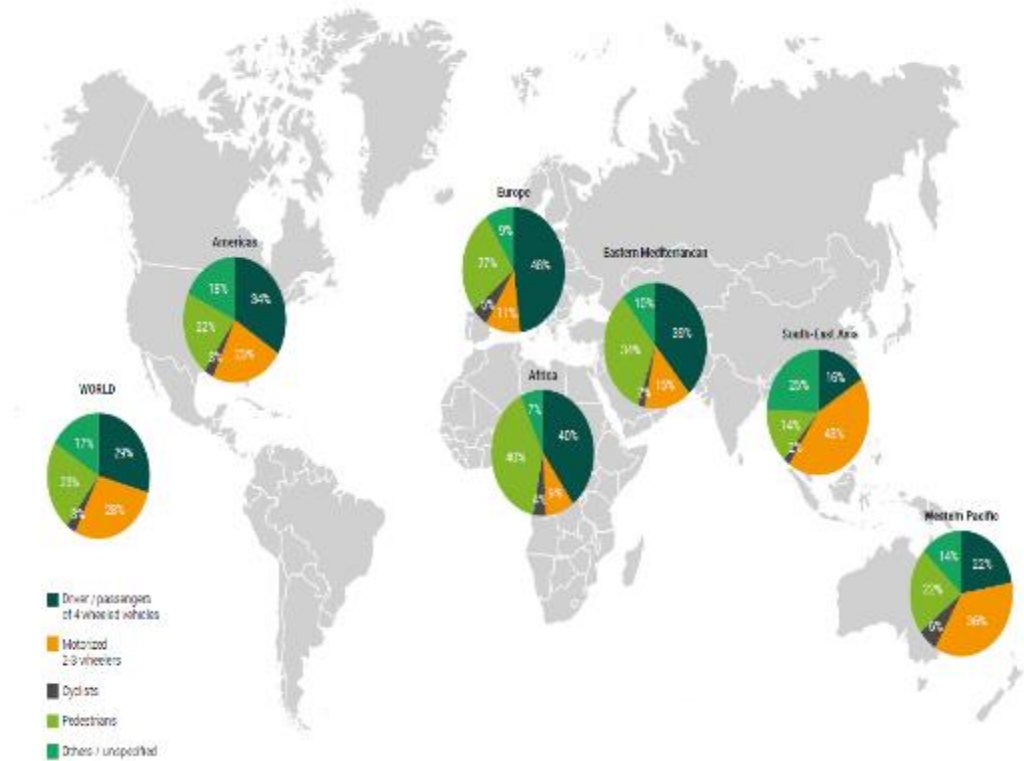
Diversity in Road Safety Culture

➤ **Different levels of economic development**
GDP, growth, etc.

➤ **Different levels of transport system development**
Road network, vehicle fleet, public transport, etc.

➤ **Different traffic patterns**
Modal share between pedestrians, PTW, passenger cars, HGVs, PT, etc.
Traffic share inside/outside urban areas

➤ **Different risk perceptions**
speeding, distraction, drink-and-drive, etc.

Measuring Traffic Safety Culture Components

➢ **Traffic Safety Performance**
Crashes, Exposure, Key Performance Indicators

➢ **Safe System Approach Indicators**
Monitoring implementation, evaluating effectiveness

➢ **Road Users' Behaviour**
Stated attitudes and beliefs, recorded behaviour

Traffic Safety Performance

➤ **Crash data** provide a broad picture of the size of the problem, but very little on crash characteristics and causation

➤ Crash data are meaningful only if they are combined with exposure data (crashes per km/time driven, per traffic characteristics, per road user, per time, etc.) in order to highlight the real dimension of the problem

➤ Crash causalities are revealed when crashes are correlated with Road Safety Performance Indicators (behaviour, infrastructure, traffic, vehicles, safety management)

Safe System Approach Indicators

➢ **Monitoring of measures,** programmes and policies implementation allows for the identification of the degree of implementation of these measures and programmes over time

➢ **Evaluation of safety measures effectiveness** provides valuable information, necessary for matching problems with solutions

Users' behaviour, attitudes and beliefs

➢ **Perception** of the relative importance of causes of crashes

➢ **Acceptability** of unsafe behaviour in traffic (speeding, distraction, DUI, etc.)

➢ **Self-declared** behaviour (as a driver, rider, pedestrian)

➢ **Opinions** on traffic rules and penalties

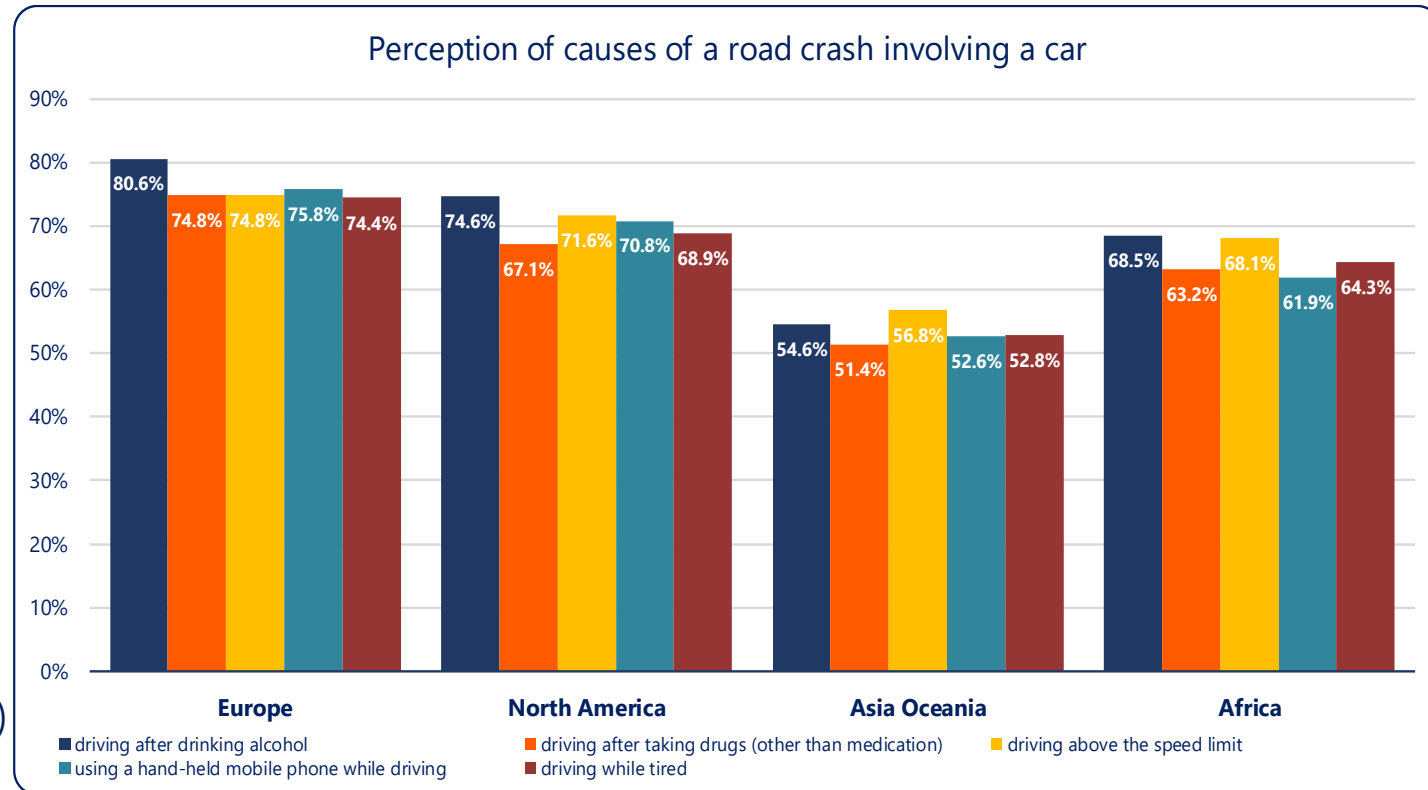➢ **Support** of existing or new policy measures
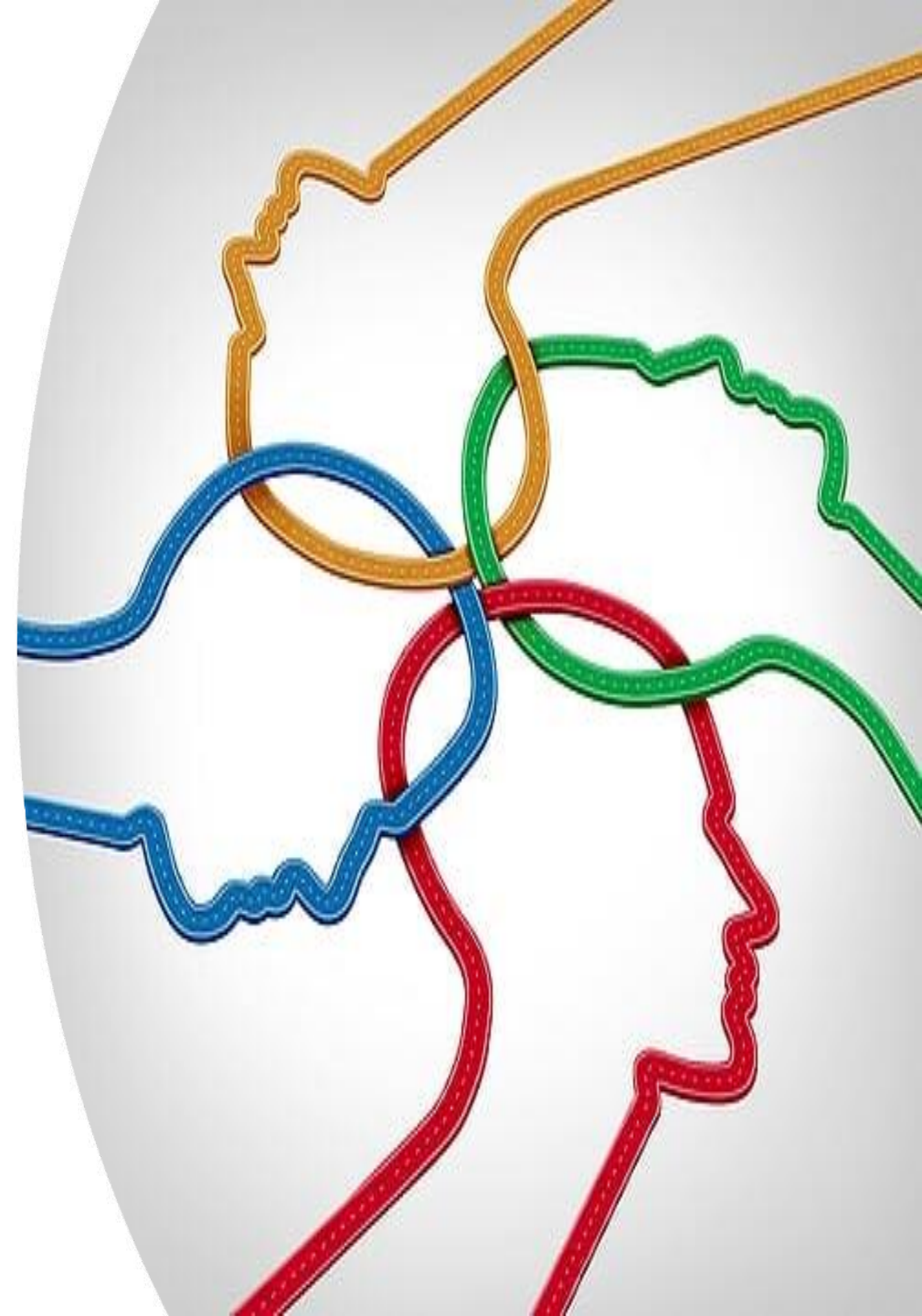
Perception of the relative importance of causes of road crashes
ESRA Global Attitudes Survey

> Most respondents from all regions believe that unsafe traffic behaviors **are often a cause** of a road crash involving a car.

> The risk perception of the unsafe behaviors as a frequent crash cause was the **highest in Europe** (from 74% for fatigued driving to 81% for drink-driving).

> The **lowest rates** were recorded in Asia-Oceania (from 51% for driving after taking drugs to 57% for driving above the speed limit).

> In **North America**, the rates ranged from 67% (driving after taking drugs) to 75% (drink-driving) and from 62% (using hand-held mobile phone while driving) to 69% (drink-driving) in **Africa.**

Perception of causes of a road crash involving a car

Legend:
- driving after drinking alcohol
- driving after taking drugs (other than medication)
- driving above the speed limit
- using a hand-held mobile phone while driving
- driving while tired

Europe: 80.6%, 74.8%, 74.8%, 75.8%, 74.4%
North America: 74.6%, 67.1%, 71.6%, 70.8%, 68.9%
Asia Oceania: 54.6%, 51.4%, 56.8%, 52.6%, 52.8%
Africa: 68.5%, 63.2%, 68.1%, 61.9%, 64.3%

Source: C. Pires, K. Torfs, A. Areal, et al., Car drivers' road safety performance: A benchmark across 32 countries, IATSS Research, https://doi.org/10.1016/j.iatssr.2020.08.002

Open data can enhance traffic safety culture

➢ Motivating Authorities
  ▪ increase of accountability
  ▪ transparency in the decision making process
  ▪ efficient use of resources

➢ Developing road user mentalities
  ▪ better understanding of the road safety problem and behaviour change
  ▪ increase of trust in road safety Authorities and decision makers
  ▪ easier acceptance of the new measures and policies

➢ Traffic Safety Cultures of the Authorities and of the Road Users are fully interdependent

Open data for international cooperation

➤ improving through **benchmarking**
at local, national and global level

➤ exchange of **good practice**
for specific problems and solutions

➤ operating **road safety observatories**
for regional cooperation

➤ exploiting **new technologies**
for low cost global big data

Conclusion

➢ **Open safety data and knowledge** available to all are the key for cultural and behavioural changes of both the road users and the Authorities

➢ Serious effort is needed at **all phases of data** collection, processing, analysis and open publication

➢ Continuous safety **monitoring and accountability** can enhance traffic safety culture

➢ Traffic safety culture should always be considered in combination with **mobility needs and culture** (especially the promotion of Public Transport)

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